

10 minutes
Closed book.

Give relational algebra expression and expression tree for the following SQL statements.

1.
SELECT *
FROM R, S, T
WHERE R.A = S.A AND
 S.B = T.B

1. a. Relational algebra

1. b. Expression tree

2.

```
SELECT      R.A, S.B, T.C
FROM        R, S, T, U
WHERE       U.X < 100    AND
            R.A = S.A    AND
            R.B = T.B    AND
            R.C = U.C
```

2. a. Relational algebra

2. b. Expression tree